

THURSDAY, OCTOBER 19, 1882

THE BURMAN

The Burman: his Life and Notions. By Shway Yoe, Subject of the Great Queen. (London: Macmillan and Co., 1882.)

THE author of these two lively little volumes tells us that Shway Yoe is the name he is known by in Burma (Shway means "Golden," and is a common Burmese epithet). He himself writes in the character of a Burman, but Englishmen who have lived in the country say that there is no native capable of having written a page of such a book. Accordingly, while respecting the writer's incognito, we must consider him to be an Englishman who does not care to publish his name; but whoever he is, it is plain he knows the land and its language and ways intimately. To Europeans going there, his work will be a guide of practical value, the more so because their difficulties so often arise from misunderstandings which knowledge of native habits would prevent. For example, an Englishman, eager to push forward on his journey on a Saturday, is furious because his servants cannot be got to buy bullocks for the cart till next day. He declares it is dilatoriness or the desire to stay and see some feast, whereas the real reason is that the day is unlucky—"it is a matter of conscience, and was taught to the Burman in a rhyme when he was a little boy at school." On the other hand, the Englishman himself gets into trouble when out shooting by going on regardless of a finger-post which gives notice that a monastery lies near, and that animals must not be killed there. While the lay Burmese are generally rather slack in condemning violations by hunters and fishers of the Buddhist law not to take life, and indeed are not averse to enjoying the results in the shape of curry and strong-smelling fish-paste, yet it would be too much to expect such profanation to be allowed under the very eyes of the holy ascetics. Another way here mentioned in which our English officials both take and give offence, really arises out of an idea belonging to the early philosophy of religion having survived with great tenacity in this corner of the globe. The Burmese have not yet come to our advanced opinion that dreams are mere subjective impressions of the sleeper's mind. The animistic view still prevails that dreaming is the actual experience of the person's life or soul, which they conceive to go forth from his body in butterfly-shape, and flutter about; this *leip-byā*, as it is called, only going to places its owner has visited before, which accounts for dreams being of known localities. The working-out of this theory as to the causes of disease and death (vol. ii., chap. xi.) is a good specimen of the author's style. It is because of the absence of the butterfly that the Burmese (like other peoples in the same intellectual stage) are unwilling to wake a sleeping man, for his spirit might be wandering far away and not have time to get back, so that its owner would fall ill. Foreigners do not always understand this primitive biology.

"An English assistant commissioner rides unexpectedly into a small townlet in his sub-division and calls for the headman. That worthy is having his afternoon siesta, and the good wife announces this with a composure which

almost surprises the young sub-janta walla into swearing. He says, 'Well, then, wake him, and tell him to bring his accounts along to the traveller's bungalow.' Old Mah Gyee shudders at the very thought, and flatly refuses. The Englishman gallops off in a fury at the dreadful impertinence of the people, and Mah Gyee calls together all her gossips to hear of the brutality of the young *ayay-baing*, who actually wanted her to imperil her good man's life. It needs something more than passing examinations and being a smart report-writer to govern the people well."

This dream-theory seems one of the many points of earlier and cruder religion which the Burmese keep up, notwithstanding their conversion to Buddhism. Thus they still propitiate with offerings and prayers the nats or spirits which they regard as swarming over land and water, in house or forest. That this is the old local religion is proved by its prevalence among indigenous tribes who have not learnt Buddhism, or have not assimilated its teachings so far as the Burmese proper. Thus no low class Talaing would think of eating a morsel without first holding up his platter in the air, and breathing a prayer to the village nat; while at the entrance to a Kachin village may be seen not only the remains of food and drink put out for the spirits, but even axes and choppers for them to fight with, and all this not for the love of these beings, but to give them whatever they want, so that they may let the villagers alone. It is not surprising that the subtle metaphysics of Buddhism should be over the heads of the uneducated in Burma as elsewhere. Thus Buddhist doctrine does not recognise a separate surviving soul after death. Physical individuality ceases at a man's death and dispersion into the elements, but a new personality arises in the being which succeeds him, conditioned by *karma* (Burmese *kan*), the result of the deeds of the whole line of predecessors. European students like Rhys Davids may well admire this speculative attempt to account by a chain of causation for each man's disposition and character, and may notice its foreshadowing of modern evolutionist ideas of inherited characters; but the tillers of the paddy-fields of the Irrawaddy must find much easier the simple physical conception of a dream-soul.

In the more learned Burmese monasteries Buddhist doctrine is studied, and scholars may be found to discuss the distinction between karma and transmigration of souls, or to show that *nirwana* (Burmese *neh'ban*) is not annihilation, as so many Europeans erroneously suppose. The author even claims "that at the present time Buddhism exists in Burma in a form much nearer to that which Shin Gautama taught than is found in any country where the Three Precious Things are held in reverence." Now Burmese Buddhism is doubtless purer than that of the gross and dull Tibetans, but it is setting the disciple above the master to put it thus into competition with the Buddhism of Ceylon, whence the Burmese received the missionaries and had translations of the Pali books. As to the moral rules which even more than philosophic beliefs are vital to Buddhism, their effect doubtless still manifests itself in a mildness and kindness of life controlling the natural character, which is described as hot-blooded and combative. But the observance of the moral precepts has fallen so much away from the original standard, that we have here an instructive example of religious

decay in the sophistry by which they are kept in form while violated in reality. Buddhists who lead the ascetic life are bound to support themselves by carrying round the almsbowl from house to house, not asking for anything, nor going to the doors of the rich rather than the poor, but taking what is given, and eating with loathing so much as is necessary to prevent death. The almsbowl is still the sign of the holy man, and he carries it round, but it is only in the severest monasteries that he really eats the indiscriminate bits of fish and flesh and handfuls of rice and mango. The mess generally goes to the little boy-scholars, and after them to the crows and pariah dogs, while the monks set to on a comfortable hot breakfast in the monastery. With like ingenuity the ascetic will sit with his back to the sun, so that he does not know when it is afternoon, and can take another meal without breaking the law; while some, mindful of the law not to touch money, will wrap their hands in a cloth and then take it. Among the casuistic points which the student of morals finds most curious in theoretical and practical Buddhism is that alluded to already, how in a religion where the taking of life is one of the five great sins, even the monks receive fish and meat in their almsbowls, and every village is pervaded by the smell of nga-pee, which seems to go far beyond that of anchovy sauce, its nearest English correlative. The answer is, that if necessity drives a man to the wicked life of killing animals, he will pay the penalty in ages of misery in future states, but he who eats the meat is no way responsible. Even the fisherman finds his way out of the loose-meshed moral net :-

"Fishermen are promised terrible punishments in a future life for the number of lives they take, but popular sympathy finds a loophole of escape for them. They do not actually kill the fish. These are merely put out on the bank to dry after their long soaking in the river, and if they are foolish and ill-judged enough to die while undergoing the process, it is their own fault."

The passage of which this is part (vol. i. p. 341) may be recognised as coming from Prof. Adolf Bastian's "Reisen in Birma," which forms the second volume of his "Voelker des Oestlichen Asien." Of this important book, which has not been translated into English, the present author has in several places made use.

It is not only through Buddhism that Hindu influence has acted on Burma; indeed in one way or another, three-fourths of its civilisation seems to have been borrowed from India. This accounts for various popular superstitions, familiar in Europe as belonging to the Aryan nations, re-appearing among this Mongoloid race of South-Eastern Asia. Thus as the ordeal by water has in India the authority of the Code of Manu, it is not surprising that ducking witches is a mode of trial familiar to the Burmese; our officials now prohibit it in British territory, possibly not telling the natives how lately we did it ourselves. Another superstition here noticed, is that a Burmese prizes a child's caul as much as an English sailor does. The one may expect by its means to gain the favour of some great man, while the other carries it to save him from drowning; but these are only particular ways in which the mysterious envelope exerts its general power of giving protection or luck. It would be interesting to learn whether the Burmese have the idea of its being the abode of the child's soul or guardian spirit, which

may be the source of the whole group of beliefs. The system of magic, mostly astrology, which stultifies so much of the life of the Burmese, seems almost entirely Hindu, in fact the court astrologers are a caste of Brahmans. One of their chief proceedings is to connect the days of the week in all sorts of ways with men's lives. The Hindus learnt the week and its seven planet-named days through the Greek-Roman astrologers, perhaps not much earlier than our ancestors did, but while among us its astrological significance only survives in such folklore rhymes as "Monday's child is fair of face," &c., in Burma it regulates even the children's names. The letters of the alphabet are grouped in connection with the planets and their days, so that for instance a child born on Sunday must have a name beginning with a vowel, as Moungh *Ohn* (Mr. Cocanut), Ma *Eh* (Miss Cold), or Oo *Oh* (Old Pot). Thus people's names not only give the magician information as to their planets, characters, and fates, but they even determine what couples may not marry, for instance, a Friday's daughter must not marry a Monday's son, for their life would be short. Thus, too, their names will direct the doctor how to diet them when sick, as for example the Sunday-born persons whose names are given above would have to avoid food beginning with a vowel, as eggs (*oo*) or cocoa-nuts (*ohn*).

It is not our province to discuss the chapters relating to practical politics, such as the rice-trade, the annexation-question, or even the great shoe-question which weighs so heavily on the local diplomatic mind. But two more subjects may be mentioned as interesting from the anthropological point of view. One is the recognition of dancing as a direct expression of emotion (vol. ii. chap. i.).

"If a great man wants dancing he hires people to do it for him. If indeed he becomes greatly excited at a boat race, a buffalo fight, or a religious procession on its way through the town to the pagoda, he may tuck up his pasoh tightly round his thighs and caper away till his bare legs tire, but he does so ordinarily with a ludicrously solemn aspect, as if the performance were a part of his official duties, and to be got through with as much stately dignity as the dispensing of justice from the magisterial bench. It is a concession to the excitability of his nature, and he would be very much offended if next day, when he had calmed down to his ordinary composed demeanour, an Englishman were to compliment him on the agility he displayed, or the complexity of his evolutions on the previous day."

The other subject to be referred to is tattooing, which is a fine art in Burma as elsewhere in this part of Asia. A lad does not consider himself a man till he has been tattooed from waist to knees with what looks like a pair of drawers embroidered blue with elephants, apes, and tigers. The operation is so painful that opium is usually taken to deaden the pain. The instrument is a steel point, split to hold the lampblack, this pricker being fitted in a weighted holder two feet long. Besides these figures done for decoration, charm-figures and magic squares are pricked in for love-charms, or to preserve from snake-bite or drowning. It is the more interesting to read these details, as there has for some time been an extraordinary specimen of Burmese tattooing to be seen in England, namely, the "Tattooed Man," who was some while since exhibited at the Westminster Aquarium, and who is an Albanian Suliote named Georgios Konstantinos. Setting aside his mostly fictitious story of having been tattooed

as a punishment in Central Asia, the fact is that his decoration with some 400 figures all over his body except the soles of his feet, was evidently done by Burmese tattooers, and is a masterpiece of their unpleasant craft. There is an account of him by Mr. Franks in the *Journal of the Anthropological Institute* for 1872.

E. B. TYLOR

PROF. STRASBURGER'S RECENT
RESEARCHES

Ueber den Bau und das Wachsthum der Zellhäute. Von Dr. Ed. Strasburger, Professor an der Universität Bonn. (Jena, 1882.)

THE work before us is another evidence of Prof. Strasburger's untiring industry and minute research. Interesting as all his books have been, this one may be said to surpass its predecessors in this respect, inasmuch as the questions with which it deals are of such fundamental importance in botanical science. The main object of the researches here published is to throw light upon two difficult and much-discussed points, namely, the intimate structure of organised bodies, and the mode of growth of cell-walls and starch-grains. With regard to the researches themselves it need only be said that they appear to have been carried out with Prof. Strasburger's accustomed thoroughness and accuracy, and that they are abundantly illustrated by beautiful drawings. The conclusions deduced from them are so remarkable that a brief *résumé* will not be out of place.

With regard to the intimate structure of organised bodies, Prof. Strasburger entirely dissents from that view which is known to all botanists as Naegeli's micellar hypothesis.¹ This hypothesis was based upon the phenomena of "swelling-up" which are so characteristic of organised bodies, and upon the optical properties which certain of these bodies possess. Prof. Strasburger points out that swelling-up may be as well ascribed to the taking-up of water between the molecules of the body as to its being taken up between Naegeli's micellæ. He shows also in a striking manner that the double refraction of organised bodies, such as cell-walls and starch-grains, depends upon their organisation as a whole, for when once their organisation is destroyed their double refraction is lost, a result which cannot be explained on the micellar theory since the particles of the disintegrated micellæ would, like particles of broken crystals, still retain their double refraction. According to Prof. Strasburger the molecules of an organised body are not aggregated into micellæ which are held together by attraction, but they are linked together, probably by means of multi-valent atoms, by chemical affinity in a reticulate manner. Swelling-up is then the expression of the taking-up of water into the meshes of the molecular reticulum, where it is retained by intermolecular capillarity. The more extensible the reticulum, that is, the more mobile the groups of molecules within their position of equilibrium, the greater the amount of swelling-up. The limit is reached when the chemical affinity of the molecules and the force of the intermolecular capillarity are equal; if the latter exceed the former at any moment the result is the destruction of the molecular reticulum, or, in other words, of the organisation. Protoplasm differs from

other organised bodies in that the grouping of its molecules is undergoing perpetual change, the result of this molecular activity being the phenomena which we term vital.

The growth in thickness of cell-walls and of starch-grains takes place, according to Prof. Strasburger, by the deposition of successive layers. Here again he is at issue with Naegeli, who believed that the mode of growth was intussusceptive with subsequent differentiation of layers. It is impossible to go into detail with regard to the observations from which his conclusion has been formed; it need only be said that they are very numerous and elaborate, and that they confirm those of Dippel and of Schimper. Prof. Strasburger goes indeed so far as to say that even the surface-growth of cell-walls is not intussusceptive, but is merely due to stretching. It must be admitted that, assuming that all cellulose is derived from proteid, it is difficult to understand how proteid particles can be intercalated into the cell-wall to become subsequently converted into cellulose, but it is equally difficult to imagine that the wall of large cells, such for instance as an internodal cell of *Nitella* or a laticiferous cell of *Euphorbia*, is simply the much-stretched wall of the small cell from which these originated. Surely the amount of solid substance in the wall of such cells as these increases with its increased surface! Here further investigation is doubtless needed.

There is, however, one point of detail which is of such general interest that it deserves some consideration; it is with reference to the mode of formation of the cell-wall and of the thickening-layers. Schmitz some years ago expressed the opinion that the cell-wall is formed by the actual conversion of a layer of the protoplasm, that is, chemically speaking, by the production of a layer of cellulose from a layer of proteid. With this opinion Professor Strasburger entirely agrees, and he supports it by a number of remarkable observations. When a mass of protoplasm is about to clothe itself with a membrane, the peripheral layer becomes densely filled with minute proteid bodies, the microsomata, and this layer then becomes converted into cellulose. The wall of a young wood-cell of *Pinus*, for instance, is clothed internally with a layer of protoplasm filled with microsomata, which are arranged in spiral rows; the microsomata then gradually disappear, and the layer of protoplasm is found to be replaced by a layer of cellulose, which presents spiral striation corresponding to the previously existing rows of microsomata, and which constitutes a thickening layer of the cell-wall. In cells the walls of which become much thickened, the whole of the protoplasm may be gradually used up in this way. Again, the wall of pollen-grains and of spores is formed from a peripheral layer of the protoplasm which contains abundant microsomata. Its subsequent growth, and especially the development of the asperities which it commonly presents, is effected by the surrounding protoplasm which is derived from the disorganised tapetal cells; this is especially well shown in the development of the epispore (perinium) of *Equisetum* and of *Marsilia*. When an intine or endospore is present, it is produced like the outer coat, from a peripheral layer of the protoplasm of the pollen-grain or spore. Further, the septum which is formed in the division of a cell is

¹ See NATURE, vol. xxiii. p. 78.